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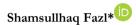


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# The Effect of Managerial Ability on Performance with the Mediating Role of Capital Structure



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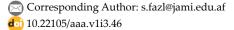
#### Abstract

This study examined the effect of management ability on the performance of companies in Tehran capital market with the mediating role of capital structure. We were analyzed and investigated using data collection through past information (post-event) to be included in descriptive-correlational studies. In addition, the information Rahavard Navin software and Tadbir Pardaz software and the audited financial statements and notes of the companies are used to collect the relevant data. Our statistical population in this research consists of all companies in the capital market of Tehran, some of which have been selected and analyzed in this study. In this study, data analysis was carried out for companies in the Tehran capital market from 2016 to 2022 using Eviews software and dynamic panel model (PMG). The method used in this research is descriptive-analytical; to match the economic theories with the realities of the society, the causal relationships between variables were investigated using statistics and figures, and after matching with the theories, using inferential statistics and dynamic panel econometric method and ARDL panel model were tested in Eviews software to reject or prove the presented hypotheses, which were accepted according to the results of all three research hypotheses in both models.

Keywords: Management ability, Capital structure, Firm performance, Human resources, Net income.

# 1 | Introduction

Due to the increasing competition between organizations and in line with the organizational change and transformation, every organization seeks to perform more effectively; the performance of the company is one of the most important structures discussed in management research and, without doubt, the most important measure of success. It is considered in commercial companies because many management tasks are formed based on it, and the success of organizations can be seen in the mirror of their performance; on this basis,





managers and organizational leaders always seek to improve and increase the performance of their companies in most organizations in the world [1]. Today, the survival of organizations is threatened in many ways by the constant environmental changes. Organizations must choose the right strategy to maximize environmental opportunities according to their strengths and weaknesses to survive. In this way, organizations take a step towards improving their performance by choosing the best strategy. The organization adopts different strategies to respond appropriately to environmental factors, and their compatibility with the level of environmental change is a critical issue for the organization. From the point of view of most investors, the organization's financial status is considered the only factor or criterion that determines its competitive status, and often, financial factors cause the current strategies and implementation plans to change [2]. Developing strategic thinking in an organization's managers goes far beyond creating strategic plans. Strategic thinking helps managers to formulate an appropriate strategy for survival and success. Strategic thinking is considered the organization's appropriate strategic approach in today's changing and unpredictable environment. Strategic thinkers help develop and create strategies that enable the organization's leaders to generate ideas that can lead the organization to a sustainable competitive advantage. Strategic thinkers who implement the strategy are more likely to successfully implement the strategy and improve the financial performance of the organization [3]. Information on the financial performance of companies is essential from the users' point of view. So far, several variables related to financial performance have been studied by researchers in such a way that investors, managers, and creditors each consider criteria to measure the performance of a business unit [4]. On the other hand, the management, as the owners' representative, should make the best use of the limited resources by analyzing and understanding the organization's objectives under its responsibility [1].

Effective managers generate higher-quality earnings and improve business performance. Performance is defined by efficiency and effectiveness because effectiveness indicates the extent to which goals are achieved. Efficiency refers to how resources are used economically to achieve goals. These can be considered two important dimensions of performance, i.e., internal causes (efficiency) and external causes (effectiveness) for specific parts of performance. Therefore, performance is a function of the activities' efficiency and effectiveness [5]. Performance evaluation is a tool for assessing past, present, and future situations. By examining and identifying problems, managers can adopt practical solutions to achieve the desired situation. Due to economic, social, and political developments, the role of performance evaluation has gone beyond its traditional task (judging and measuring performance) to focus on growth, development, and improvement [6]. With the expansion of public companies in recent decades and the separation of ownership and management, attention to managers' performance has increased. In public companies, business unit managers, as representatives of the shareholders, must maximize shareholder wealth and seek to grow the company by adopting optimal financial and operational policies.

The move in this direction follows the adoption of strategic goals and makes managers' performance in implementing operational strategies and their level of value creation important. On the other hand, companies face changing environmental conditions during their lifetimes, and managers have a fundamental role in guiding the company and responding appropriately to these changes. This has led to the role of management's ability to improve the company's performance in the face of risks being a large part of financial and accounting research. Many researchers are looking for an answer to whether managers' ability and level of quality, as one of the most valuable human capitals, plays a role in improving the company's performance. Some researchers believe that the management of the company, especially the executive management, has an important impact on the company's final performance in the stages of the company's activity. In this case, senior managers help align employees' goals with the company's interests, create the necessary organizational culture, and play a role in decisions about the company's response to environmental and technological change. In this view, management plays a continuous role in creating value and improving the company's performance in all conditions and stages of the company's life. In today's rapidly changing business environment, focusing solely on the direct impact of managerial ability on firm performance may only partially reflect a manager's ability to sustain competitive advantage. The current gap in the literature that links managerial ability to capital structure or organizational performance needs to be addressed more adequately. It is significant, although the literature suggests that managerial ability has only unobservable effects on capital structure. There is less empirical evidence on how it affects firm performance, except [7]. Consequently, the relationship between managerial ability and organizational performance can be considered spurious without a mediator. Therefore, a study of the effect of managerial ability on firm performance through a mediating role is needed. In addition, the literature has extensively examined the determinants of firm decisions, including capital structure [8–10] and performance [11, 12]. A company's capital structure reflects the skills of its managers and affects its profitability. According to the mandate theory, if a company is profitable, it has retained earnings or cash for financing. Similarly, capital structure is a key factor in firm performance. This is supported by agency theory.

In addition, while managerial ability may explain a firm's debt level, it suggests a link between managerial characteristics and capital structure decisions. Managers may have this ability, but their influence on firm performance may be indirect, acting through other variables such as capital structure. This mediating effect has yet to be investigated in the literature. Thus, our study fills a much-needed gap. Specifically, this study aims to assess how capital structure mediates the effects of managerial ability on firm performance using a mediation technique with a bootstrapping approach to examine robustness. Analyzing and investigating the effect of the role of management ability in companies in the capital market, which can be related and influential to management characteristics such as the manager's ability to advance the performance of companies, and also the relationship between management characteristics and capital structure decisions are analyzed in the research. The previous ones have not been investigated; this research tries to answer the question: How does managerial ability, combined with the mediating role of capital structure, affect the performance of companies in the Tehran capital market?

# 2| Literature and Hypotheses

### 2.1 | Managerial Ability

Managerial ability and its various measures are generally considered to be one of the dimensions of organizational capital, which is a general classification as part of intangible assets. Demerjian [13] defines managerial capability as the efficiency of managers relative to competitors in transforming firm resources into income. These company resources include the price of inventories, selling, general and administrative expenses, property, plant and equipment, operating rents, research and development costs, and the company's intangible assets. More capable managers have a better understanding of technology and industry trends and can predict product demand more confidently. In addition, more appropriate investment in higher-value projects and efficient management of employees are also characteristics of competent managers. In the short term, these managers are expected to be able to generate more revenue with a given level of resources or to generate a given level of revenue with fewer resources (same source). The most famous model for measuring managerial capability is that of [13]. In their study, the researchers, for the first time, developed a model that quantitatively measures management ability using accounting variables. In this model, management ability is calculated by measuring the firm's efficiency and then entering it into multivariate linear regression as the dependent variable and controlling the inherent characteristics of the firm.

Demerjian et al. [13] used the data envelopment analysis model to measure management capability. Data envelopment analysis model is a statistical model used to measure system performance using input and output data. The model of firm performance is designed like the Fama and French [14] model for the industry so that the performance of each firm can be compared with the performance of firms in the industry. In this model, a specific coefficient is also considered for each input variable, as the effect of all input variables on output (sales) is not the same. The value calculated for the company's efficiency also includes a number between zero and one, the maximum efficiency being equal to one, and the lower the value obtained, the less efficient the company is. In any industry, the company with the highest efficiency is the leader. Identifying quantitative measures of managerial ability based on various criteria, including personal characteristics, intelligence, and leadership style, has been one of the goals of previous studies. Indeed, we see unprofitable companies with a lot of operational capacity and resources.

Therefore, selecting the right managers and evaluating their performance to make decisions about retaining or dismissing them, as well as determining the right salaries, benefits, and rewards when recruiting new managers, is of particular importance in organizations. In addition, the performance of managers can be measured based on financial criteria and can be a suitable indicator for evaluating their performance. It also provides useful information for decision-making at general meetings to appoint directors. From a macro perspective, using suitable managers increases the efficiency of the company and the correct use of organized resources, thus improving the macroeconomic situation through the prevention of wasted resources and the creation of sustainable employment.

### 2.2 | Capital Structure

Capital structure theory states that every company has an optimal capital structure, a structure that can maximize the company's value and minimize the cost of capital. However, there are several conflicting issues regarding capital structure decisions, and this theory cannot be used to accurately determine the company's capital structure. Since companies cannot accurately determine the optimal capital structure, managers are forced to use personal judgment when performing quantitative analysis.

### 2.3 | Company Performance

Performance refers to both the action and the result of the action. In other words, performance is defined as today's action, the prelude to producing a certain amount of tomorrow's output value. In general, organizational performance is defined as the degree of excellent and effective achievement of an action on the set goals, which can be defined by efficiency and effectiveness. The organization should be assessed in achieving the objectives. Function, in the word, refers to the state or quality of functioning. Organizational performance is, therefore, a general construct that refers to how organizational operations are carried out. Neely and colleagues give the most famous definition of performance: the process of explaining the quality of effectiveness and efficiency of past actions. Organizational performance is the company's performance in both financial and non-financial terms. In fact, everything that happens in an organization to improve or damage it affects people's views. Company performance is the degree to which a company successfully creates value for different parts of the market. The company's performance is determined based on the achievement of business objectives by different units of the company, and the success of each company's strategies is reflected in the performance of that company.

# 2.4 | Net Income (NI)

The NI approach assumes that the interest on debt (R\_D) and the cost of equity (R\_E) are independent of the firm's leverage; that is, the interest on debt and the cost of equity are constant regardless of the amount of debt used by the firm, the presence of debt in the firm does not change the risk to investors, and there is no corporate tax. If the cost of debt is less than the cost of equity, then if R\_D and R\_E are both constant, the weighted average cost of capital (R\_A) of the firm will always decrease as more debt is used, and this decrease in the cost of capital increases the value of the firm. Therefore, the NI theory says that using more debt in the context of capital will decrease the cost of capital, and the value of the company (V) will increase. As a result, according to this approach, the choice of capital structure is related to the company's value; in other words, a change in the capital structure causes a change in the cost of capital and the overall value of the company. As can be seen from the graph, according to the NI Theory, the company's value increases continuously until the company uses 100% debt. So, if the NI assumptions are valid, the logical conclusion is that the company should finance itself with 100% debt.

H1a= The managerial ability with the mediating role of capital structure significantly affects the performance (ROA) of companies in Tehran's capital market.

H2a= managerial ability has a significant effect on the performance (ROA) of companies in the Tehran capital market.

H3a= Capital structure has a significant effect on the performance (ROA) of companies in Tehran capital market.

H1b= managerial ability with the mediating role of capital structure, significantly affects the performance (ROE) of companies in Tehran's capital market.

H2b= managerial ability has a significant effect on the performance (ROE) of companies in the Tehran capital market.

H3b= Capital structure has a significant effect on the performance (ROE) of companies in the Tehran capital market.

# 3 | Methodology

### 3.1 | Statistical Population and Sample Size

Our statistical population in this research consists of all companies in Tehran's capital market, some of which have been selected and analysed in this research.

Our sample according to the sample selection conditions, which include:

- I. Annual accounts ending 29 March.
- II. It should not be an investment or holding company.
- III. There should be no interruption in their activities.

The time frame of this research is from 2016 to 2022.

### 3.2 | Research Model and Variables

According to the theoretical issues of the subject and taking into account the presented empirical studies on the effect of managerial ability on the performance of companies in the capital market of the Tehran with the mediating role of capital structure, the empirical model of the research is presented as follows:

$$\begin{split} \text{PER}_{it} &= \beta_0 + \beta_1 \text{ManAb}_{it} + \beta_2 \text{CS}_{it} + \beta_3 \text{CS} * \text{ManAb}_{it} + \beta_4 \text{InTA}_{it} + \beta_5 \text{MKTSHR}_{it} + \\ \beta_6 \text{FCFD}_{it} + \beta_7 \text{InAGE}_{it} + \beta_8 \text{BUSSEG}_{it} + \beta_9 \text{BSIZE}_{it} + \epsilon_{i,t}. \end{split}$$

### Dependent variable

Company performance (PER): for the firm performance variable, 1- return on assets and 2- return on equity (ROE) are used:

- I. return on assets (ROA): net profit / total assets.
- II. 2-Return on equity (ROE): net profit / equity.

It examines a company's efficiency in generating net profit for shareholders. This ratio effectively expresses how much net profit the company generates for each unit of shareholders' investment. The return on equity is calculated by dividing net profit after tax by total equity.

#### Independent variables

Management ability (ManAb): in a general perspective, management ability and its various metrics are considered one of the dimensions of organizational capital, which is part of intangible assets in a general classification. Demerjian et al. [13] defines management ability as the efficiency of managers relative to competitors in converting the firm's resources into income. These resources in firms include the price of inventories, selling, general and administrative costs, tangible fixed assets, operating rents, research and development costs, and the firm's intangible assets [13]. It is believed that more capable managers better understand technology and industry trends and can predict product demand more confidently. In addition,

more appropriate investment in higher-value projects and efficient management of employees are also characteristics of capable managers. In the short term, these managers are expected to be able to generate more income with a given level of resources or to generate a given level of income with fewer resources.

$$\text{max}_v\theta = \frac{\text{Sales}}{v_1\text{PP\&E} + v_2\text{NetOpL} + v_3\text{R\&D} + v_4\text{Goodwill} + \ v_5\text{OthInt} + \ v_6\text{Inv} + v_7\text{SG\&A'}}$$

where, SALE: net sales, PPE: cost of goods sold, NETOPL: general, selling, and administrative expenses, INV: net investments, SGA: operating leases, OTHIN: intangible assets, Goodwill: Goodwill. The ability to manage provides an efficiency boundary for companies between zero and one. Companies whose efficiency size (MAX  $\theta$ ) is greater than the average boundary is above the efficiency boundary and identified as efficient. The number one is given, and for the companies whose efficiency size (MAX  $\theta$ ) is less than the average limit, the number zero is given, and they are below the efficiency limit [13]. Market share (MKTSHR) is the annual ratio of company sales to industry sales.

Firm size: (lnTA) as the natural logarithm of total assets.

Free cash flow (FCFD): a dummy variable equal to one if a company has positive free cash flow, zero otherwise.

Age of the enterprise (lnAGE): natural logarithm of the number of years.

Business segment (BUSSEG) is the ratio of a company's sales in each business segment to total sales across all business segments.

Board size (BSIZE), measured as the number of directors on the board, and year fixed effects.

### Mediating variable

Capital structure (CS): capital structure is measured by the Market Leverage Ratio (MLR), the ratio of total short-term and long-term debt to total debt and market value. Financial leverage is considered one of the most important indicators of a company's profitability. Financial leverage occurs when a company finances itself by borrowing with interest. The purpose of analyzing the company's financial leverage is to determine whether management can raise more funds through debt than it costs to raise them. If this is the case, the company's financial leverage is considered desirable; otherwise, it is considered undesirable. If the entity does not use the borrowed funds, it has no financial risk and cannot recognize financial leverage. In this case, the only type of company risk is commercial or operational risk. The combination of fixed and variable costs in the business, competition in product markets, access to materials and input wages, speed of technological change, and the like causes this type of risk.

# 4|Findings of the Research

# 4.1 | Estimating Models and Testing Research Hypotheses

The panel ARDL method with the PMG estimator is used depending on the model specification. In the panel ARDL model with the PMG estimator, the effect of constant variables over time or sections is removed. This model also estimates the short and long-run results of the model and the vector error correction pattern.

#### 4.1.1 | The first regression model

The direction of the hypothesis test in the first part of the regression related to this test is estimated as follows:

$$ROA_{it} = \beta_0 + \beta_1 ManAb_{it} + \beta_2 CS_{it} + \beta_3 CS * ManAb_{it} + \beta_4 InTA_{it} + \beta_5 MKTSHR_{it} + \beta_6 FCFD_{it} + \beta_7 InAGE_{it} + \beta_8 BUSSEG_{it} + \beta_9 BSIZE_{it} + \epsilon_{i,t}.$$

T7 1 1 1					
Variables	Long Run Equation				
	Coef.	SD.	t stats	P> z	
MANAB	0.286550	0.086628	3.307833	0.0010	
CS	-0.160041	0.046553	-3.437850	0.0007	
CS*MANAB	-0.212527	0.090308	-2.353357	0.0356	
INTA	0.855505	0.276131	3.098190	0.0040	
MKTSHR	0.393667	0.142781	2.757139	0.0201	
FCFD	0.642607	0.230948	2.782475	0.0200	
LNAGE	0.631234	0.195603	3.227118	0.0019	
BUSSEG	0.341549	0.101256	3.375249	0.0009	
BSIZE	0.496421	0.175702	2.825358	0.0069	
Variables	Short Run Equation				
COINTEQ01	-0.157389	0.047692	-3.300113	0.0010	
D(MANAB)	0.897400	0.289110	3.104009	0.0041	
D(CS)	-0.433451	0.159418	<b>-</b> 2.718959	0.0218	
D(CS*MANAB)	-0.027478	0.009527	-2.884224	0.0184	
D(INTA)	0.329059	0.136048	2.418698	0.0234	
D(MKTSHR)	0.356254	0.142352	2.502627	0.0202	
D(FCFD)	0.417364	0.091048	4.584000	0.0000	
D(LNAGE)	0.041283	0.024203	1.705692	0.0885	
D(BUSSEG)	0.120152	0.031329	3.835169	0.0001	
D(BSIZE)	0.158886	0.075984	2.091051	0.0419	
С	0.302654	0.030356	9.970154	0.0000	

Table 1. Model estimation results using panel ARDL for the first regression model (with the return on assets as the dependent variable).

The t-statistic was used to test the significance of the coefficients of the independent variables in each model. The null hypothesis in the t-test is as follows:

$$\begin{cases} H_0: \beta_1 = 0, \\ H_1: \beta_1 \neq 0. \end{cases}$$

Whose accuracy is examined by the following statistics:

$$T = \frac{\hat{\beta}_1 - \beta_1}{SE(\hat{\beta}_1)} \sim t_{\frac{\alpha}{2}, N-k}.$$

To decide whether to accept or reject the null hypothesis, the obtained t-statistic is compared with the t-table calculated with N-K degrees of freedom at the 95% confidence level if the calculated absolute value of T is greater than the tablet ( $|T| > t_{\frac{\alpha}{2},N-k}$ ), The numerical value of the test function is placed in the critical region

and the null hypothesis ( $H_0$ ) is rejected. In this case, with a 95% confidence level, the desired coefficient  $\beta_1$  will be significant, indicating a relationship between the independent and dependent variables.

The results of the estimation of the ARDL panel model, with the rate of return on assets as the dependent variable, show that the coefficients of the variables are significant in the long run; their signs are as expected and in line with the theoretical foundations of the subject.

#### 4.1.2 The first hypothesis in the model of return on assets

The first hypothesis of the research is that the ability of management with the mediating role of capital structure has a significant effect on the performance of companies in the capital market of Tehran, which is rewritten as follows:

H1a= The managerial ability with the mediating role of capital structure significantly affects the performance of companies in Tehran's capital market.

In the asset return rate model, according to the calculation probability for CS\*ManAb variable, which is 0.0356 and 0.0184 in the long term and 0.0184, respectively, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected, and as a result, management ability With the mediating role of capital structure, it has a significant effect on the performance of companies in Tehran's capital market, and this shows that the first hypothesis of the research is confirmed.

### 4.1.3 | The second hypothesis in the model of return on assets

The second hypothesis of the research is that management ability has a significant effect on the performance of companies in the capital market of Tehran, which is rewritten as follows:

H2a= managerial ability has a significant effect on the performance of companies in the Tehran capital market.

In the asset return rate model, according to the calculation probability for the ManAb variable, which is equal to 0.0010 and 0.0041 in the long term and 0.0041, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected and as a result, management ability has a significant impact. On the performance of companies in the capital market of Tehran and the third hypothesis in the model of return on assets. The third hypothesis in the model of return on assets is that capital structure significantly affects the performance of companies in the Tehran capital market, which is rewritten as follows: this shows that the second hypothesis of the research is confirmed.

H3a= Capital structure has a significant effect on the performance of companies in Tehran capital market.

In the asset return rate model, according to the calculation probability for the CS variable, which is equal to 0.0007 and 0.0218 in the long term and 0.0218, respectively, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected, and as a result, capital structure has a significant effect. On the performance of companies in Tehran capital market, and this shows that the third hypothesis of the research is confirmed.

# 4.2 | The Second Regression Model

The direction of the hypothesis test in the second part of the regression related to this test is estimated as follows:

$$\begin{aligned} \text{ROE}_{it} &= \beta_0 + \beta_1 \text{ManAb}_{it} + \beta_2 \text{CS}_{it} + \beta_3 \text{CS} * \text{ManAb}_{it} + \beta_4 \text{InTA}_{it} + \beta_5 \text{MKTSHR}_{it} + \\ \beta_6 \text{FCFD}_{it} + \beta_7 \text{InAGE}_{it} + \beta_8 \text{BUSSEG}_{it} + \beta_9 \text{BSIZE}_{it} + \epsilon_{i,t}. \end{aligned}$$

Table 2- Results of ARDL panel estimation for the second regression model (with the return on equity as the dependent variable).

Variables	Long Run Equation			
	Coef.	SD.	t stats	P> z
MANAB	0.084408	0.028959	2.914706	0.0037
CS	-0.465470	0.121367	-3.835215	0.0001
CS*MANAB	-0.204690	0.089165	-2.295631	0.0300
INTA	0.381218	0.074073	5.146531	0.0000
MKTSHR	0.237776	0.086521	2.748188	0.0054
FCFD	0.288743	0.100192	2.881899	0.0040
LNAGE	0.016559	0.007091	2.335214	0.0355
BUSSEG	0.016839	0.006021	2.796881	0.0049
BSIZE	0.110132	0.055542	1.982849	0.0491

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Variables	Long Run Equation						
	Coef.	SD.	t stats	P> z			
Short Run Equation							
COINTEQ01	-0.235516	0.085117	-2.762255	0.0053			
D(MANAB)	0.141679	0.027859	5.085530	0.0000			
D(CS)	-0.037010	0.016641	-2.224000	0.0265			
D(CS*MANAB)	-0.276170	0.096685	-2.856400	0.0042			
D(INTA)	0.373429	0.189832	1.967154	0.0481			
D(MKTSHR)	0.951415	0.416922	2.281998	0.0380			
D(FCFD)	0.220427	0.077053	2.860720	0.0160			
D(LNAGE)	0.014838	0.006607	2.245690	0.0378			
D(BUSSEG)	0.129525	0.066090	1.959811	0.0504			
D(BSIZE)	0.120704	0.060604	1.991677	0.0487			
С	0.305260	0.058288	5.237120	0.0000			

Table 2- Results of ARDL panel estimation for the second regression model (with the return on equity as the dependent variable).

The results of the ARDL panel model estimation, with the return on equity as the dependent variable, show that the coefficients of the variables are significant in the long run; their signs are as expected and in line with the theoretical foundations of the subject.

### 4.2.1 | The first hypothesis in the model of return on equity

The first hypothesis of the research is that the managerial ability with the mediating role of capital structure has a significant effect on the performance of companies in the capital market of Tehran, which is rewritten as follows:

H1b= managerial ability with the mediating role of capital structure, significantly affects the performance of companies in Tehran's capital market.

In the equity return rate model, according to the calculation probability for the CS\*ManAb variable, which is equal to 0.0300 and 0.0042 in the long term and 0.0042, respectively, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected, and this shows that the first hypothesis of the research is confirmed.

#### 4.2.2 The second hypothesis in the model of return on equity

The second hypothesis of the research is that management ability has a significant effect on the performance of companies in the capital market of Tehran, which is rewritten as follows:

H2b= managerial ability has a significant effect on the performance of companies in the Tehran capital market.

In the equity return rate model, according to the calculation probability for the ManAb variable, which is equal to 0.0037 and 0.0000 in the long term and 0.0000, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected and as a result, management ability It has a significant effect on the performance of companies in the capital market of Tehran, and this shows that the second hypothesis of the research is confirmed.

#### 4.2.3 The third hypothesis in the model of return on equity

The third hypothesis of the research is that capital structure has a significant effect on the performance of companies in the capital market of Tehran, which is rewritten as follows:

H3b= Capital structure has a significant effect on the performance of companies in the Tehran capital market.

In the equity return rate model, according to the calculation probability for the CS variable, which is equal to 0.0001 and 0.0265 in the long term and 0.0265, respectively, and this probability is less than 0.05, it can be concluded that the null hypothesis is rejected, and as a result, the capital structure It has a significant effect on the performance of companies in the capital market of Tehran, and this shows that the third hypothesis of the research is confirmed.

# 5 | Conclusion

Following the hypothesis of managerial ability with the mediating role of capital structure, they examined the effect of managerial ability on the capital structure of pharmaceutical and materials companies. Their research showed that companies with more capable managers used more financial leverage. Also, the control variables of size, tangible and intangible assets have no significant effect on financial leverage. It is worth noting that there are two hypotheses regarding the relationship between managerial ability and capital structure and the competing value of risk efficiency. According to the franchise of risk efficiency hypothesis, firms with more capable managers, who are likely to have higher efficiency, choose a higher level of leverage because higher efficiency reduces the risk of bankruptcy costs and financial crisis, which the results of this research are in line with the current hypothesis. It was in the same direction. According to the hypothesis of managerial ability with the mediating role of capital structure, it is suggested that there is a significant effect on the performance of companies in the capital market of Tehran. There should be continuous supervision of managers. Because of the conflict of interest between managers and shareholders, managers always seek to achieve their interests; the existence of managers with better skills may lead them to the goal above and cause damage to shareholders' interests. To prevent the company's resources from being wasted and to prevent managers from pursuing their interests, the shareholders and the company's board of directors can make decisions on the investment project in the form of a committee consisting of shareholders who are experts in the field and company managers who are experts in the field. According to the hypothesis that management ability has a significant effect on the performance of companies in the capital market of Tehran, it is proposed.

Investors, credit analysts, and owners of investee companies are advised to consider the ability and stability of management, the company's history, and its performance in critical situations to determine the level of financial flexibility. It is recommended that the stock exchange periodically rank companies according to their management capabilities, efficiency, and performance index, and financial flexibility criteria to increase market transparency and help investors make better decisions. According to the capital structure hypothesis, a significant effect on the performance of companies in the Tehran capital market is suggested. It is recommended that the stock exchange periodically ranks companies in terms of their management capabilities according to an efficiency and performance index and financial flexibility criteria to increase market transparency and help investors make better decisions. Given the importance of the capital structure of companies for the continuation of their activities, it is necessary to put the criteria for the valuation of debt on the agenda of investors in the capital markets by the economic and social conditions for the optimal allocation of resources. This research has studied the companies listed on the Tehran Stock Exchange; therefore, it is suggested that this issue be examined in non-listed companies as well in future research. Capital market conditions should be taken into account in capital structure studies. In future studies, researchers can consider macro variables of the capital market that may affect the process of predicting financial helplessness. Researchers should also identify other factors that have a curvilinear effect on the financial status of companies listed on the Tehran Stock Exchange.

### **Conflict of Interest**

The authors declare no conflict of interest.

# Data Availability

All data are included in the text.

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### References

- [1] Ahi, F., Toulabi, Z., & Mohammadi, E. (2021). The effect of strategic thinking and strategic planning on company performance with the moderating role of strategic foresight (case study: gas company of kermanshah province). *New research approaches in management and accounting*, 5(17), 10–22.
- [2] Juliana, C., Gani, L., & Jermias, J. (2021). Performance implications of misalignment among business strategy, leadership style, organizational culture and management accounting systems. *International journal* of ethics and systems, 37(4), 509–525. https://www.emerald.com/insight/content/doi/10.1108/IJOES-02-2021-0033/full/html
- [3] Sirén, C., & Kohtamäki, M. (2016). Stretching strategic learning to the limit: the interaction between strategic planning and learning. *Journal of business research*, 69(2), 653–663. https://www.sciencedirect.com/science/article/pii/S0148296315003847
- [4] Momtazian, A., & Kazemnejad, M. (2016). Managerial abilities and performance measures. *Empirical research in accounting*, 5(4), 65-88. (**In Persian**).
- [5] Dian, Y., & Xuanyu, O. (2020). The rise and impact of financial capitalism: a sociological analysis of new forms of capitalism. *Social sciences in china*, 41(4), 24–43. https://www.tandfonline.com/doi/abs/10.1080/02529203.2020.1844422
- [6] Bentley-Goode, K. A., Omer, T. C., & Twedt, B. J. (2019). Does business strategy impact a firm's information environment? *Journal of accounting, auditing & finance*, 34(4), 563–587. https://journals.sagepub.com/doi/abs/10.1177/0148558X17726893
- [7] Wang, W., Lu, W., Kweh, Q. L., & Lee, J. (2021). Management characteristics and corporate performance of chinese chemical companies: the moderating effect of managerial ability. *International transactions in operational research*, 28(2), 976–995. https://onlinelibrary.wiley.com/doi/abs/10.1111/itor.12575
- [8] Chen, Z., Harford, J., & Kamara, A. (2019). Operating leverage, profitability, and capital structure. *Journal of financial and quantitative analysis*, 54(1), 369–392. DOI:10.1017/S0022109018000595
- [9] Huang, X., Kabir, R., & Zhang, L. (2018). Government ownership and the capital structure of firms: analysis of an institutional context from china. *China journal of accounting research*, 11(3), 171–185. https://www.sciencedirect.com/science/article/pii/S1755309118301345
- [10] Klasa, S., Ortiz-Molina, H., Serfling, M., & Srinivasan, S. (2018). Protection of trade secrets and capital structure decisions. *Journal of financial economics*, 128(2), 266–286. https://www.sciencedirect.com/science/article/pii/S0304405X18300473
- [11] Hui, K. W., Liang, C., & Yeung, P. E. (2019). The effect of major customer concentration on firm profitability: competitive or collaborative? *Review of accounting studies*, 24, 189–229. https://link.springer.com/article/10.1007/s11142-018-9469-8
- [12] Liljeblom, E., Maury, B., & Hörhammer, A. (2020). Complex state ownership, competition, and firm performance–Russian evidence. *International journal of emerging markets*, 15(2), 189–221. https://www.emerald.com/insight/content/doi/10.1108/IJOEM-08-2017-0287/full/html
- [13] Demerjian, P., Lev, B., & McVay, S. (2012). Quantifying managerial ability: a new measure and validity tests. *Management science*, 58(7), 1229–1248. https://pubsonline.informs.org/doi/abs/10.1287/mnsc.1110.1487
- [14] Fama, E. F., & French, K. R. (1997). Industry costs of equity. *Journal of financial economics*, 43(2), 153–193. https://www.sciencedirect.com/science/article/pii/S0304405X96008963